

Appl. No. : 10/072,317
Filed : February 6, 2002

REMARKS

The December 7, 2005 Final Office Action was based on pending Claims 1, 5–16 and 20–23. By this Response, Applicant is amending Claims 1, 7, 11, 16, 20 and 21 and is cancelling Claims 22 and 23 without prejudice or disclaimer. Claims 5, 6, 8–10 and 12–15 remain as originally filed, and new Claims 24–27 have been added.

Thus, after entry of the foregoing amendments, Claims 1, 5–16, 20, 21 and 24–27 are pending and presented for further consideration. In view of the foregoing amendments and the remarks set forth below, Applicant respectfully submits that Claims 1, 5–16, 20, 21 and 24–27 are in condition for allowance.

SUMMARY OF OBJECTIONS AND REJECTIONS

The Final Office Action rejected Claims 1, 5–11, 13–16 and 20–22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,951,695 to Kolovson (“Kolovson”) in view of U.S. Patent No. 6,067,545 to Wolff (“Wolff”). Claims 12 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kolovson in view of Wolff and in further view of U.S. Patent No. 5,796,934 to Bhanot (“Bhanot”).

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Submitted concurrently herewith is a Supplemental Information Disclosure Statement citing one (1) reference, which was cited during the prosecution of a co-pending related U.S. patent application. While Applicant does not believe that this reference will affect the patentability of the pending claims, Applicant respectfully requests the Examiner to consider the pending claims in connection with this reference in order to make the reference of record.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103(a)

The Final Office Action rejected Claims 1, 5–11, 13–16, 20 and 21 as being unpatentable over Kolovson in view of Wolff. Claim 12 was rejected as being unpatentable over Kolovson in view of Wolff and in further view of Bhanot.

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In view of the foregoing amendments and for at least the reasons set forth below, Applicant respectfully disagrees and requests reconsideration of the aforementioned claims.

Amended Independent Claim 1

Focusing on amended independent Claim 1, in one embodiment of Applicant's invention a database cluster is disclosed for avoiding client failure by connecting to multiple nodes of the cluster. The database cluster includes a first computing system having a primary connection manager, which forms a client TCP/IP connection with and receives transactions from at least one client, and a primary DBMS that executes the transactions on data stored in one or more data files.

The claimed database cluster also includes a second computing system having a secondary DBMS that communicates with a secondary connection manager and can access data stored in the one or more data files. The secondary connection manager is configured to monitor a performance of the first computing system, and the primary connection manager is configured to monitor a performance of the second computing system. The secondary connection manager also transparently assumes the TCP/IP connection when the secondary connection manager determines that an unbalanced workload exists between the first and the second computing systems.

Monitoring of Performance

Neither Kolovson, nor Wolfe, nor a combination thereof teaches or suggests the database cluster of amended Claim 1. For example, the cited art does not teach or suggest a database cluster having a primary connection manager of a first computing system and a secondary connection manager of a second computing system that are configured to monitor performance of, respectively, the second computing system and the first computing system.

Kolovson discloses a database failover system that includes a primary node and a standby node that both have access to database storage. When the primary node fails, the standby node becomes the primary node and resumes pending operations. See column 4, lines 48–57. Kolovson does not appear to teach that (1) the standby

node monitors the performance of the primary node, and (2) the primary node monitors the performance of the standby node. With respect to (2), in particular, the primary node of Kolovson would have no reason to monitor the performance of the standby node because the standby node only takes over operations when the primary node fails.

Wolfe discloses methods for load balancing a network. In the portions of Wolfe cited by the Examiner, Wolfe discloses that either a client computer or a process running on a server connected to a network may determine if that particular server is overloaded (see, e.g., col. 5, lines 37–42). Wolfe does not appear to teach or suggest computing systems that are configured to form a connection with a client computer, wherein each of the computing systems has a connection manager that monitors the performance of the other computing system.

Transparent Assumption of TCP/IP Connection

Additionally, neither Kolovson, nor Wolfe, nor a combination thereof, teaches or suggests the transparent assumption of a client TCP/IP connection. In particular, amended Claim 1 recites that the primary connection manager of the first computing system forms a TCP/IP connection with the client and communicates transactions to a DBMS for execution against stored data. When the secondary connection manager determines that an unbalanced workload exists between the first and the second computing systems, the secondary connection manager transparently assumes the TCP/IP connection with the client. The cited references do not appear to have any discussion of TCP/IP in connection with database management systems.

Summary as to Amended Claim 1

Because the references cited by the Office Action do not teach or suggest each limitation of amended Claim 1, Applicant asserts that amended Claim 1 is patentably distinguished over Kolovson and Wolff, and Applicant respectfully requests allowance of Claim 1.

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Amended Independent Claims 11, 20 and 21

Amended independent Claims 11, 20 and 21 are believed to be patentably distinguished over the cited references for reasons similar to those set forth above with respect to the patentability of amended independent Claim 1 and for the different aspects recited therein. In particular, the cited references do not appear to teach or suggest transparently moving a client TCP/IP connection from a first database system to a second database system when a connection manager of the second database system determines that the first database system is overloaded or unbalanced.

Dependent Claims 5-10 and 12-16

Claims 5-10 depend from amended independent Claim 1 and are believed to be patentable for the reasons set forth above with respect to amended Claim 1 and for the additional features recited therein.

Claims 12-16 depend from amended independent Claim 11 and are believed to be patentable for the reasons set forth above with respect to amended Claim 11 and for the additional features recited therein.

NEW CLAIMS 24-27

New Claims 24-27 have been added to more fully define the Applicant's invention and are believed to be fully distinguished over the prior art of record.

REQUEST FOR TELEPHONE INTERVIEW

Pursuant to M.P.E.P. § 713.01, in order to expedite prosecution of this application, Applicant's undersigned attorney of record hereby formally requests a telephone interview with the Examiner as soon as the Examiner has considered the effect of the arguments presented above. Applicant's attorney can be reached at the general office number listed below.

CONCLUSION

In view of the foregoing, the present application is believed to be in condition for allowance, and such allowance is respectfully requested. If further issues remain to be

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resolved, the Examiner is cordially invited to contact the undersigned such that any remaining issues may be promptly resolved.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 4-5-06

By: John R. King
John R. King
Registration No. 34,362
Attorney of Record
Customer No. 20,995
(949) 760-0404

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